



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

A

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/649,193	08/28/2000	Raminderpal Singh	251/245	7511
23639	7590	11/18/2005	EXAMINER	
BINGHAM, MCCUTCHEN LLP THREE EMBARCADERO CENTER 18 FLOOR SAN FRANCISCO, CA 94111-4067			STEVENS, THOMAS H	
		ART UNIT	PAPER NUMBER	
			2123	

DATE MAILED: 11/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	09/649,193	SINGH, RAMINDERPAL
	Examiner	Art Unit
	Thomas H. Stevens	2123

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 25 August 2005.
- 2a) This action is **FINAL**.                            2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1,2,6,7,9-12,16,17 and 19-52 is/are pending in the application.
  - 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1,2,6,7,9-12, 16, 17 19-52 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.
 

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All    b) Some \* c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: \_\_\_\_\_.

## DETAILED ACTION

1. Claims 1,2,6,7,9-12, 16, 17, and 19-52 were examined.

### ***Section I: Non-Final Rejection (3<sup>rd</sup> Office Action)***

#### ***Claim Interpretation***

2. Office personnel are to give claims their "**broadest reasonable interpretation**" in light of the supporting disclosure. *In re Morris*, 127 F.3d 1048, 1054-55, 44 USPQ2d 1023, 1027-28 (Fed. Cir. 1997). Limitations appearing in the specification but not recited in the claim are not read into the claim. *In re Prater*, 415 F.2d 1393, 1404-05, 162 USPQ 541, 550-551(CCPA 1969). See \*also *In re Zletz*, 893 F.2d 319, 321-22, 13 USPQ2d 1320, 1322(Fed. Cir. 1989) ("During patent examination the pending claims must be interpreted as broadly as their terms reasonably allow") .... The reason is simply that during patent prosecution when claims can be amended, ambiguities should be recognized, scope and breadth of language explored, and clarification imposed .... An essential purpose of patent examination is to fashion claims that are precise, clear, correct, and unambiguous. Only in this way can uncertainties of claim scope be removed, as much as possible, during the administrative process. Examiner equates simulation engine and simulation device.

#### ***Claim Rejections - 35 USC § 103***

3. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.

2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1,2,6,7,9-12, 16, 17, 19-52 are rejected under 35 U.S.C. 103 (a) as obvious by Robertson et al., (US Patent 6,594,799 (2003)) (hereafter Robertson), in view of Zhang et al., (US 6,587,748 (2004)) (hereafter Zhang). Robertson teaches a first and second simulation device with databases connected to a computer network; but doesn't teach portal sites, simulation events located on remote computers using XML (Robertson: column 8, lines 16-20) software, which Zhang does teach. However, Zhang does not teach first and second simulations.

At the time of invention, it would have been obvious to one of ordinary skill in the art to modify Zhang by way of Robertson since it would have been advantageous to connect participants in the electronic design process, including end users and suppliers, through a single portal site that facilitates information exchange and commercial transactions. It would further be advantageous to make a wide variety of design and verification tools readily and conveniently available to design engineers, and to allow

use of such tools without a large initial capital outlay in either software or hardware. It would further be advantageous to provide a mechanism for pooling knowledge and information concerning chip design techniques, applications, products and tools. It would also be advantageous to provide a convenient means for allowing engineers to incorporate virtual circuit blocks into their designs (Robertson: column 4, lines 48-61); and, furthermore, to decrease the monetary and time burdens of purchasing and maintaining many network devices in a network environment while still accurately testing the scalability, performance, and reliability of network management services (Zhang: column 2, lines 21-26).

**Claim 1.** A method for facilitating a collaborative simulation between a first simulation engine and at least a second simulation engine, (Zhang: column 12, lines 1-8) wherein said simulation engines are communicatively coupled together with a simulation portal (Zhang: column 11, lines 27-28 with Robertson: column 8, lines 21-35) over a computer network, said method comprising: creating said simulation portal (Zhang: column 11, lines 27-28 with Robertson: column 8, lines 21-35) openly accessible to said first and second simulation engines connected to said computer network; accepting a connection to said simulation portal (Zhang: column 11, lines 27-28 with Robertson: column 8, lines 21-35) by each of said first simulation engine and said second simulation engine, (Zhang: column 12, lines 1-8) receiving a simulation output (Zhang: output of a communication device: column 5, lines 54-56) file at said portal from said first simulation engine; and providing said simulation output (Zhang: output of a communication device:

column 5, lines 54-56) file from said simulation portal (Zhang: column 11, lines 27-28 with Robertson: column 8, lines 21-35) upon request to at least said second simulation engine (Zhang: column 12, lines 1-8).

**Claim 2.** The method of claim 1 wherein said creating a simulation portal (Zhang: column 11, lines 27-28 with Robertson: column 8, lines 21-35) step further comprises: creating said simulation portal using XML (Robertson: column 8, lines 16-20); and configuring said simulation portal (Zhang: column 11, lines 27-28 with Robertson: column 8, lines 21-35) to allow connections from each of said simulation engines (Zhang: column 12, lines 1-8) connected to said computer network .

**Claim 6.** The method of claim 1 further comprising managing simulation output (Zhang: output of a communication device: column 5, lines 54-56) files for multiple simulations running contemporaneously (Inherent, by nature of use of the Internet: Robertson: column 7, lines 47-57).

**Claim 7.** The method of claim 1 wherein said accepting a said connection step further comprises: verifying said connection with a username and password combination (Zhang: column 9, lines 40-41; Robertson: column 15, line 6).

**Claim 9.** A system for performing simulations wherein a first simulation engine and at least a second simulation engine are communicatively coupled together with a simulation portal (Zhang: column 11, lines 27-28 with Robertson: column 8, lines 21-35)

over a computer network, said system comprising: means for creating said simulation portal (Zhang: column 11, lines 27-28 with Robertson: column 8, lines 21-35); means for accepting connections to said simulation portal (Zhang: column 11, lines 27-28 with Robertson: column 8, lines 21-35) from each of said first simulation engine and said second simulation engine; means for receiving at stimulation portal a one or more simulation output (Zhang: output of a communication device: column 5, lines 54-56) files from said first simulation engine; and means for providing said one or more simulation output (Zhang: output of a communication device: column 5, lines 54-56) files from said simulation portal (Zhang: column 11, lines 27-28 with Robertson: column 8, lines 21-35) upon request to said second simulation engine.

Claim 10. The system of claim 9 wherein said means for creating said simulation portal (Zhang: column 11, lines 27-28 with Robertson: column 8, lines 21-35) include creating said simulation portal (Zhang: column 11, lines 27-28 with Robertson: column 8, lines 21-35) in XML (Robertson: column 8, lines 16-20).

Claim 11. The system of claim 9 wherein said means for accepting connections includes verifying said connection with a username and password combination (Zhang: column 9, lines 40-41; Robertson: column 15, line 6).

Claim 12. A computer program product embodied on computer readable medium usable by a processor the medium having stored thereon a sequence of instructions

which when executed by said processor causes said processor to execute a method for facilitating a collaborative simulation between a first simulation engine and at least a second simulation engine, wherein said first and said second simulation engines are communicatively coupled with a simulation portal (Zhang: column 11, lines 27-28 with Robertson: column 8, lines 21-35) over a computer network, said computer program product comprising: instructions for making said simulation portal (Zhang: column 11, lines 27-28 with Robertson: column 8, lines 21-35) openly accessible to said simulation engines over said computer network; instructions for accepting a connection to said simulation portal (Zhang: column 11, lines 27-28 with Robertson: column 8, lines 21-35) from each of said first simulation engine and said second simulation engine; instructions for receiving a simulation output (Zhang: output of a communication device: column 5, lines 54-56) file uploaded from at least said first simulation engine; and instructions for providing said simulation output (Zhang: output of a communication device: column 5, lines 54-56) file to at least said second simulation engine upon request.

Claim 16. The computer program product of claim 12 further comprising instructions for managing simulation output (Zhang: output of a communication device: column 5, lines 54-56) files for multiple simulations running contemporaneously (Inherent, by nature of use of the Internet: Robertson: column 7, lines 47-57).

Claim 17. The computer program product of claim 12 wherein said instructions for accepting a said connection further comprise instructions for verifying said connection

with a username and password combination (Zhang: column 9, lines 40-41; Robertson: column 15, line 6).

Claim 19. A method for optimizing the components in a system design comprising: creating a simulation portal (Zhang: column 11, lines 27-28 with Robertson: column 8, lines 21-35) that is openly accessible over a computer network; publishing a system design specification model; accepting a connection to said simulation portal (Zhang: column 11, lines 27-28 with Robertson: column 8, lines 21-35) from each of a plurality of design teams communicatively coupled together with said simulation portal (Zhang: column 11, lines 27-28 with Robertson: column 8, lines 21-35) over said computer network; receiving a simulation output (Zhang: output of a communication device: column 5, lines 54-56) file at said portal from at least one of said plurality of design teams connected to said simulation portal (Zhang: column 11, lines 27-28 with Robertson: column 8, lines 21-35); providing at least one of said simulation output (Zhang: output of a communication device: column 5, lines 54-56) files from said simulation portal (Zhang: column 11, lines 27-28 with Robertson: column 8, lines 21-35) to at least one other of said design teams connected to said simulation portal (Zhang: column 11, lines 27-28 with Robertson: column 8, lines 21-35); and selecting the optimal components for said system desire based on a comparison of said simulation output (Zhang: output of a communication device: column 5, lines 54-56) files.

Claim 20. The method of claim 19 wherein accepting said a connection step further comprises verifying said connection with a username and password combination (Zhang: column 9, lines 40-41; Robertson: column 15, line 6).

Claim 21. The method of claim 19 wherein said desire teams are not connected to the simulation portal (Zhang: column 11, lines 27-28 with Robertson: column 8, lines 21-35) at the same time.

Claim 22. The method of claim 19, further comprising terminating (Note: examiner claims this inherent: if secure members a have the ability to log on, the opposite is true) said connection to said simulation portal (Zhang: column 11, lines 27-28 with Robertson: column 8, lines 21-35) from any of said plurality of design teams upon request.

Claim 23. A simulation portal (Zhang: column 11, lines 27-28 with Robertson: column 8, lines 21-35) comprising: a data storage repository, capable of storing data for each of a plurality of simulations, a communications server, allowing a plurality of simulation engines to connect to the portal and to participate in one or more of the plurality of simulations (Robertson: column 6, lines 37-40); and a simulation controller (Zhang: column 5, line 26 coupled with Robertson: column 8, lines 34-35 and column 6, lines 37-45), managing and synchronizing communications (standard network communication

function) between the participating simulation engines, the portal being created dynamically (dynamically forming parts: Robertson: column 6, lines 25-26).

**Claim 24.** The portal of claim 23, wherein the simulation controller (Zhang: column 5, line 26 coupled with Robertson: column 8, lines 34-35 and column 6, lines 37-45) manages simulation data for multiple simulations running contemporaneously (Inherent, by nature of use of the Internet: Robertson: column 7, lines 47-57).

**Claim 25.** The portal of claim 23, wherein the data includes a synchronization (standard network communication function) file to allow the participating simulation engines to match timing steps, said data associated with each of the simulations available to any simulation engine participating in the simulation.

**Claim 26.** The portal of claim 25, wherein the synchronization (standard network communication function) files is update (Zhang: column 3, line 20)d by each simulation engine participating in the simulation as it simulates.

**Claim 27.** The portal of claim 23, wherein the plurality of simulation engines includes any web (Robertson: column 8, lines 30-31) enabled engine.

**Claim 28.** The portal of claim 23, wherein the simulation controller (Zhang: column 5, line 26 coupled with Robertson: column 8, lines 34-35 and column 6, lines 37-45)

verifies a username and password combination (Zhang: column 9, lines 40-41; Robertson: column 15, line 6).

Claim 29. The portal of claim 23, wherein the communication server allows each simulation engine to disconnect (Inherent: e.g., "pull the power cord") from the portal upon request.

Claim 30. The portal of claim 23, wherein the plurality of simulation engines are not connected (Inherent: e.g., "pull the power cord") to the portal at the same time.

Claim 31. The portal of claim 23, wherein the portal is terminated dynamically (dynamically forming parts: Robertson: column 6, lines 25-26) by writing programming files and executing those files.

Claim 32. The portal of claim 23, wherein the programming files are written in XML (Robertson: column 8, lines 16-20).

Claim 33. The portal of claim 23, wherein the communications between the participating simulation engines (Robertson: column 6, lines 25-35) and the portal uses XML (Robertson: column 8, lines 16-20).

Claim 34. The portal of claim 23, wherein the portal (Robertson: column 7, lines 33-34) is created by an entity not participating in the simulation.

Claim 35. A method for conducting a collaborative simulation of a circuit desired comprising: a) dynamically (dynamically forming parts: Robertson: column 6, lines 25-26) creating a portal, by writing programming files in XML (Robertson: column 8, lines 16-20)) and executing those files; b) granting access to the portal to a plurality of simulation engines; c) receiving a simulation output (Zhang: output of a communication device: column 5, lines 54-56) file associated with a first portion of the circuit designed from a first of said plurality of simulation engines; d) storing the simulation output (Zhang: output of a communication device: column 5, lines 54-56) file in a storage area, said output (Zhang: output of a communication device: column 5, lines 54-56) file available to any of said plurality of simulation engines; e) sending the simulation output (Zhang: output of a communication device: column 5, lines 54-56) file to each of said plurality of simulation engines upon request, at least a second of said plurality of simulation engines performing a simulation for a second portion of the circuit design using the output (Zhang: output of a communication device: column 5, lines 54-56) file as output (Zhang: output of a communication device: column 5, lines 54-56)) between team members); and f) repeating c) through e) until the circuit design has been simulated (Repetition: Design Choice, See MPEP 2144.04 Section VI, part B, **Duplication of Parts, *In re Harza*, 274 F.2d 669, 124 USPQ 378 (CCPA 1960)**).

Claim 36. The method of claim 35, further comprising, g) terminating the portal by executing one or more XML (Robertson: column 8, lines 16-20) statements.

**Claim 37.** The method of claim 35, wherein the storage area includes a synchronization (standard network communication function) file associated with the simulation to allow participating simulation engines to match timing steps.

**Claim 38.** The method of claim 37, wherein the synchronization (standard network communication function) file is update (Zhang: column 3, line 20)d by each simulation engine as it simulates.

**Claim 39.** The method of claim 35, wherein each simulation engine terminates access to the portal after its output (Zhang: output of a communication device: column 5, lines 54-56) file is received.

**Claim 40.** The method of claim 35, wherein the portal (Robertson: column 6, line 40) is created by an entity not participating in the simulation.

**Claim 41.** The method of claim 35, wherein the portal (Robertson: column 6, line 40) is created by an entity participating in the simulation.

**Claim 42.** The method of claim 35, wherein granting access to the portal) comprises verifying a username and password combination (Zhang: column 9, lines 40-41; Robertson: column 15, line 6).

**Claim 43.** The method of claim 35, wherein the simulation output (Zhang: output of a communication device: column 5, lines 54-56) file includes an industry standard output (Zhang: output of a communication device: column 5, lines 54-56) format.

**Claim 44.** The method of claim 35, wherein the simulation output (Zhang: output of a communication device: column 5, lines 54-56) file includes a vendor specific output (Zhang: output of a communication device: column 5, lines 54-56) file format.

**Claim 45.** The method of claim 35, wherein receiving the simulation output (Zhang: output of a communication device: column 5, lines 54-56) file includes receiving output (Zhang: output of a communication device: column 5, lines 54-56) files from multiple simulations running contemporaneously (Inherent, by nature of use of the Internet: Robertson: column 7, lines 47-57).

**Claim 46.** A simulation system comprising: a portal, comprising a storage area to store data used in with each of a plurality of simulations; and a plurality of simulation engines in communication (Zhang: column 11, lines 7-8) with the portal, the plurality of simulation engines able to send simulation output (Zhang: output of a communication device: column 5, lines 54-56) files to the portal and able to receive any of the simulation output (Zhang: output of a communication device: column 5, lines 54-56) files from the portal.

Claim 47. The system of claim 46, wherein the plurality of simulation engines (Zhang: column 11, lines 7-8) are not in communication (Inherent: “unplug or disconnect the device”) with the portal at the same time.

Claim 48. The system of claim 46, wherein the communications with the portal uses XML (Robertson: column 8, lines 16-20).

Claim 49. The system of claim 46, wherein the communications with the portal (Robertson: column 6, line 40) requires the verification of a username and password combination (Zhang: column 9, lines 40-41; Robertson: column 15, line 6).

Claim 50. The system of claim 46, wherein the stored data includes a synchronization (standard network communication function) file to allow simulation engines participating in the simulation to match timing steps.

Claim 51. The method of claim 46,) wherein the synchronization (standard network communication function) file is updated (Zhang: column 3, line 20) by each simulation engine as it simulates.

Claim 52. A simulation system comprising: a portal, (Robertson: column 6, line 40) comprising a storage area to store data for use in a plurality of simulations (Zhang: column 11, lines 7-8); a plurality of web-enabled simulation engines in communication with the portal.

***Section II: Response to Applicants Arguments (2<sup>nd</sup> Office Action)***

***112 2<sup>nd</sup>***

6. Applicants are thanked for addressing this issue. Rejection is withdrawn.

***102(b)***

7. Applicant's arguments see pages 11-13, filed 8/25/05, with respect to the rejection of claims 1,2,6,7,9-12 and 15-52 under 102(b) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new grounds of rejection is made by Robertson et al., (US Patent 6,594,799 (2003)) in view of Zhang et al., (US 6,587,748 (2004)).

***Citation of Relevant Prior Art***

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: US Patent 6,038,668 Chipman et al. which teaches a network catalog search retrieval and matching system integrated with a portal; and US Patent 6,098,068 Brown teaches a database network connected to a plurality of workstations.

***Correspondence Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mr. Tom Stevens whose telephone number is 571-272-3715, Monday-Friday (8:00 am- 4:30 pm EST).

If attempts to reach the examiner by telephone are unsuccessful, please contact examiner's supervisor Mr. Leo Picard ((571) 272-3749). The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>.. Answers to questions regarding access to the Private PAIR system, contact the Electronic Business Center (EBC) (toll-free (866-217-9197)).

November 3, 2005

TS

*Paul L. Rodriguez*  
Paul L. Rodriguez 10/11/05  
Primary Examiner  
Art U